



MATHEMATICS QUADRATIC EQUATION CHAPTER 4

Name: _____

Date: _____

Class: X Sec: ____

1.	$4x^2 - 4a^2x + (a^4 - b^4) = 0$, Solve
2.	$x^2 + \left(\frac{a}{a+b} + \frac{a+b}{a}\right)x + 1 = 0$, Solve
3.	$x^2 + \left(\frac{a}{a+b} + \frac{a+b}{a}\right)x + 1 = 0$, Solve
4.	$x = \frac{1}{2 - \frac{1}{2 - \frac{1}{2 - x}}}$ $x \neq 2$, Solve
5.	A dealer sells a toy for Rs.24 and gains as much per cent as the cost price of the toy. Find the cost price of the toy.
6.	Solve $x = \sqrt{6 + \sqrt{6 + \sqrt{6} \dots}}$
7.	If the roots of the equation $(a-b)x^2 + (b-c)x + (c-a) = 0$ are equal. Prove that $2a = b+c$.
8.	A teacher on attempting to arrange the students for mass drill in the form of a solid square found that 24 students were left over. When he increased the size of the square by one student he found he was short of 25 students. Find the number of students.
9.	A fox and an eagle lived at the top of a cliff of height 6m, whose base was at a distance of 10m from a point A on the ground. The fox descends the cliff and went straight to the point A. The eagle flew vertically up to a height x metres and then flew in a straight line to a point A, the distance travelled by each being the same. Find the value of x .
10.	A lotus is 2m above the water in a pond. Due to wind the lotus slides on the side and only the stem completely submerges in the water at a distance of 10m from the original position. Find the depth of water in the pond.